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remediation at that specific site, the vulnerability of the ground water and its possible uses, exposure and likelihood of exposure and similar considerations. Additional guidance on dealing with remote sites is provided in the preamble section above on ground-water policy.

Final rule: EPA is promulgating in final § 300.430(f)(5)(iii)(A) the statement on points of compliance ("performance shall be measured at appropriate locations in the ground water, * * *") that was in proposed § 300.430(f)(4)(iii)(A).

Name: Section 300.430(e)(2)(i)(F). Use of alternate concentration limits (ACLs).

Proposed rule: The preamble to the proposed NCP (53 FR 51434) discussed conditions under which alternate concentration limits (ACLs) specified under CERCLA may be used as cleanup standards. The preamble explained that CERCLA ACLs may be used if the conditions of CERCLA section 121(d)(2)(B)(ii) are met and cleanup to MCLs or other protective levels is not practicable.

Response to comments: Several comments were made on the proposed preamble section explaining the use of CERCLA ACLs. Some commenters supported the proposed use of ACLs as is; others suggested that EPA should do more to emphasize their utility, particularly within a facility; and one commenter maintained that ACLs should not be less stringent than other standards.

In support of the proposal, one commenter pointed out that use of institutional controls and ACLs are appropriate for the same reason, that is, when use of treatment to attain drinking water standards is not practicable. Other commenters noted that ACLs provide desirable flexibility and are already well established under the RCRA program. One commenter pointed out that use of an ACL at a site should not require a new risk assessment in addition to that done during the RI/FS.

Some commenters suggested ways to expand the use of ACLs at CERCLA cleanups. One commenter wanted EPA to include the use of ACLs in the NCP's regulatory language. Another commenter, noting that Congress's concern was primarily with use of ACLs for exposure points outside a facility, suggested that ACLs could be expected to have great utility within the boundaries of a CERCLA facility; they could be granted when contaminants in ground water will attenuate to ARAR-compliant levels at the leading edge of the plume. With this in mind the commenter suggested that ACLs should be an intrinsic consideration in the initial step of ARARs identification. In a similar vein another commenter suggested that the facility boundary should be defined to include the area covered by institutional controls for the purpose of the statutory criteria and for defining the point of exposure.

EPA disagrees generally with those commenters who would extend the use of CERCLA ACLs set above drinking water standards to areas within the facility boundary or areas covered by institutional controls. EPA interprets the CERCLA section on ACLs not as an entitlement, but rather as a limitation on the use of levels in excess of standards that would otherwise be appropriate for a site. Although the limitation refers only to areas outside the facility boundary, EPA maintains that the same principle holds within the boundary (to the edge of any waste management area left at the site), namely, that such ACLs should only be used when active restoration of the ground water to MCLs or non-zero MCLGs is not practicable. Clearly, the availability of institutional controls in itself is not sufficient reason to extend the allowance for levels above drinking water standards or non-zero goals; rather, as discussed elsewhere in the preamble, institutional controls are considered as the sole remedy only where active remediation is not practicable.

EPA also disagrees with a commenter who asserted that ACLs cannot be less stringent than state or tribal ARARs or MCLGs. There is clearly no point to the ACL described in CERCLA unless it is above the standard normally applied to ground water of a given class. EPA does, however, believe that the policy described above should mitigate the commenter's fears that ground water will be sacrificed.

These comments suggest some confusion as to when MCLs or MCLGs need to be waived under CERCLA section 121(d)(4). EPA's policy is that MCLs or MCLGs above zero should generally be the relevant and appropriate requirement for ground water that is or may be used for drinking, and that a waiver is generally needed in situations where a relevant and appropriate MCL or non-zero MCLG cannot be attained. If, however, a situation fulfills the CERCLA statutory criteria for ACLs, including a finding that active restoration of the groundwater to MCLs or non-zero MCLGs is deemed not to be practicable, documentation of these conditions for the ACL is sufficient and additional documentation of a waiver of the MCL or MCLG is not necessary.

In determining that a CERCLA ACL may be used outside the facility boundary, the risk assessment and other analysis conducted in the RI/FS generally should provide the information required for the documentation that the statutory criteria and other guidelines given above are satisfied. EPA has added a reference to use of ACLs as prescribed in CERCLA in § 300.430(e)(2)(i)(F).

Final rule: EPA has added a § 300.430(e)(2)(i)(F) to the rule to reference the language in CERCLA section 121(d)(2)(B)(ii) on alternate concentration limits.

Name: Section 300.430(e)(2). Use of federal water quality criteria (FWQC).

Proposed rule: The preamble to the proposed rule discussed when federal water quality criteria are likely to be relevant and appropriate (53 FR 51442). EPA stated that a FWQC, or a component of a FWQC, may be relevant and appropriate when the FWQC is intended to protect the uses designated for the water body at the site, or when the exposures for which the FWQC are protective are likely to occur. In addition, whether a FWQC is relevant and appropriate depends on the availability of standards, such as an MCL or state water quality standard, specific for the constituent and use. In particular, when a promulgated MCL exists, an FWQC would not be relevant and appropriate for a current or potential drinking water supply.

Response to comments: One commenter opposed EPA's policy on the relevance and appropriateness of federal water quality criteria (FWQC) for current or potential drinking water sources when both FWQC and MCLs are available for a contaminant. The commenter stated that the test for relevance and appropriateness of an FWQC was whether it is protective of humans or aquatic organisms and whether that kind of exposure is an issue at the site. The commenter maintained that if an FWQC is more stringent than an MCL, the FWQC should apply, consistent with the policy that the most stringent ARAR must be complied with.

In response, FWQC are to be attained "where relevant and appropriate under the circumstances of the release or threatened release," as provided in CERCLA section 121(d)(2)(B). Final rule § 300.430(e)(2)(i)(E) reflects this fact. However, EPA believes that at many sites, FWQC will not be both relevant and appropriate in light of other potential ARARs.

EPA agrees with the commenter that the more stringent ARAR should generally be attained, especially in the

case of "applicable" requirements. However, the determination of whether a requirement is relevant and appropriate is not based on its stringency; rather, other criteria are used, as discussed in the section on relevance and appropriateness, and the remedy must comply with the most stringent requirement determined to be ARAR. EPA also believes that, in some situations, the availability of certain requirements that more fully match the circumstances of the site may result in a decision that another requirement is not relevant and appropriate. EPA believes that one such situation is when an MCL or non-zero MCLG and an FWQC for human health are available for the same contaminant when a current or potential source of drinking water is of concern, and there are no impacts to aquatic organisms.

As discussed in this preamble, EPA believes that an MCL or non-zero MCLG is generally the relevant and appropriate requirement for ground water that is a current or potential source of drinking water. EPA also believes that an MCL or non-zero MCLG, promulgated specifically to protect drinking water, generally is the appropriate standard for ground water even if an FWQC for human health is also available for the contaminant, for the following reasons.

CERCLA section 121(d)(2)(B)(i) lists, among other factors, the purpose for which the criteria were developed and the designated or potential use of the water as factors in determining whether FWQC are relevant and appropriate. Since FWQC for human health are promulgated for exposures that include drinking water and consuming fish, on the one hand, and consuming fish only, on the other, it is not directly the purpose of such criteria to provide drinking water standards per se, although levels that protect such a use can be mathematically derived from these two values. Furthermore, such derived values for drinking water will not reflect the contribution of other sources (through an apportionment factor), as MCLs and MCLGs do. Finally, for carcinogens FWQC are recommended at zero, although values corresponding to risks of 10^{-5}, 10^{-6}, and 10^{-7} are also given. For the reasons given in the discussion of MCLs and MCLGs above, the zero value is not considered relevant and appropriate under CERCLA; MCLs, however, represent a level determined to be both protective of human health for drinking water and attainable by treatment.

For the same reasons, EPA believes that MCLs or non-zero MCLGs generally will be the relevant and appropriate standards for surface water designated as a drinking water supply, unless the state has promulgated water quality standards (WQS) for the water body that reflect the specific conditions of the water body. However, surface water bodies may be designated for uses other than drinking water supply, and therefore an FWQC intended to be protective of such uses, such as the FWQC for consumption of fish or for protection of aquatic life, may very well be relevant and appropriate in such cases. Also, where a contaminant does not have an MCL or MCLG, FWQC adjusted to reflect drinking water use may be used as relevant and appropriate requirements.

Final rule: EPA is including in the final rule at § 300.430(e)(2)(i)(E) language stating that FWQC are to be attained where relevant and appropriate under the circumstances of the release or threatened release.

Name: Section 300.435(b)(2). Compliance with applicable or relevant and appropriate requirements (ARARs) *during* the remedial action.

Proposed rule: CERCLA section 121 requires that, at the completion of a remedial action, a level or standard of control required by an ARAR will be attained for wastes that remain on-site. However, consistent with the 1985 NCP (§ 300.68(i), § 300.435(b)) of the proposed NCP also required compliance with ARARs during implementation of the action, stating that *during the course of the remedial design/remedial action (RD/RA),* the lead agency shall be responsible for ensuring that all federal and state ARARs identified for the action are being met, unless a waiver is invoked. Examples of such requirements given in the preamble to the proposed rule included RCRA treatment, storage, and disposal requirements, Clean Air Act national ambient air quality standards, and Clean Water Act effluent discharge limitations (53 FR 51440).

Response to comments: EPA received a number of comments that the NCP should not require compliance with ARARs during the remedial action. Commenters argued that this policy is inconsistent with the statute, which requires compliance with ARARs only at the completion of the remedial action, and questioned EPA's authority to require compliance with ARARs during remedial design/remedial action.

Several commenters pointed out that CERCLA section 121(d)(1) states that remedial actions must be protective and "must be relevant and appropriate under the circumstances," and argued that this standard should govern how the action itself is carried out. Design and operation of the remedial action should be based on best professional judgment and undertaken in a manner that is protective. Other commenters suggested requiring compliance only with those ARARs that "can reasonably be achieved," or listing specific types of ARARs that must be met during RD/RA.

Commenters were particularly concerned about problems created by requiring compliance with RCRA requirements and the land disposal restrictions in particular for remedial actions.

EPA disagrees with these commenters. EPA believes that it is appropriate to require that remedial activities comply with the substantive requirements of other laws that apply or are relevant and appropriate to those activities. The reasons for complying with such laws during the conduct of the remediation are basically the same as the reasons for applying ARARs as remediation objectives: the laws help define how the activity can be carried out safely and with proper safeguards to protect human health and the environment. EPA is concerned that, if the narrowest possible interpretation were applied to ARARs compliance, compliance with laws critical to protection of health and the environment would become subject to debate, laws such as those that govern surface water discharges or air emissions, or that set operational standards for incineration of hazardous waste.

Several commenters also stated that chemical-specific ARARs used as remediation goals, such as MCLs as ARARs for ground water remediation, cannot be attained during implementation. EPA wants to clarify that it recognizes that ARARs that are used to determine final remediation levels apply only at the completion of the action.

It is worthwhile to point out, in the context of this policy on complying with ARARs pertaining to the remedial activity itself, that CERCLA provides a waiver from ARARs for interim actions, provided the final action will attain the waived standard. If there is doubt about whether an ARAR represents a final remediation goal or an interim standard, and it cannot be met during the activity, this waiver could be invoked.

Comments were also received on EPA's discussion of compliance with ARARs during remedial investigations in the preamble to the proposed NCP (53 FR 51442–43). In that discussion, EPA stated that on-site handling, treatment or disposal of investigation-derived waste must satisfy ARARs and that the